CLAIMS

Listing of Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Cancelled)

2. (Previously Presented) The retractable column of claim 8 wherein the chain connection member further comprises an elongated shaft and a distal hook portion wherein the surface of the chain connection member that converges towards a point is represented by the distal hook portion.

3 (Previously Presented) The retractable column of claim 2 wherein a plane running through the hook of the second chain connection member is set at an angle to the elongated shaft.

4. (Previously Presented) The retractable column of claim 3 wherein the elongated shaft of the chain connection member has a shoulder portion wherein the shoulder portion engages the corresponding section and the engagement of the shoulder and the section prevents twisting of the shaft in relation to the section from which the chain connection member extends.

5. (Cancelled)

6. (Previously Presented) The retractable column of claim 8 further comprising an at least one shim, the shims operably affixed to the guide tower whereby the shims engage the gear rack of each section chain and help to guide the chain connection members into coupled engagement.

7. (Cancelled)

8. (Previously Presented) A retractable triangular column comprising:

three section chains arranged in an adjacent manner, each section chain having a plurality of sections pivotally connected to each other;

at least one chain connection member rigidly secured to extend in an outward direction from an opposite side of each section chain wherein each chain connection member further comprises a surface which slopes toward a point and whereby each chain connection member directly couples to another chain connection member to link each section chain to the adjacent section chain in such a manner as to form a rigid triangular column as the section chains are raised in an operable position;

a guide tower operably positioned relative to the three section chains wherein the guide tower fits about and engages the sections and helps to guide the chain connection members of the adjacent section chains into coupled engagement, the guide tower including a drive mechanism operably attached thereto such that a drive gear is operably exposed;

an at least one guide roller operably connected to the guide tower and operably interacting with the section chains whereby the guide roller engages the sections and helps to guide the chain connection members into coupled engagement;

an at least one interior roller, the interior rollers operably affixed to the guide tower whereby the interior rollers engage the sections and helps to guide the hooks into coupled engagement; and

a gear rack fixedly connected to each section of the section chain whereby the gear rack is positioned to engage the drive gear of the drive mechanism and an at least one guide roller.

9. (Previously Presented) The retractable column of claim 8 wherein an at least one key is inserted into an at least one slot thereby affixing the gear rack to the section of the section chain.

10. (Previously Presented) The retractable column of claim 9 wherein the drive mechanism is operably attached to guide tower and operably interacts with the section chains whereby actuation of the drive mechanism raises the section chains into position so that the first and second chain connection members engage to form the column.

11. (Withdrawn) The apparatus of claim 1 wherein the guide tower further comprises an at least one tongue, the tongues movably connected to an at least one post by an at least one reaction ring whereby the guide tower can move in an X, Y horizontal plane.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Previously Presented) A triangular retractable column that can be stored on a take up mechanism, the triangular column further comprising:

three section chains, each section chain comprising a plurality of sections pivotally connected in a line, the section chains being attached in such a manner that they can be rolled up on the take up mechanism in a compact fashion and wherein each section is layered upon previous sections;

a first pointed hook connection member rigidly secured to each section wherein the first hook connection member extends in a horizontal manner from the section; and

a second hook connection member rigidly secured to each section wherein the second hook connection member extends in an off-set manner from the section, wherein the hook connection members are curved and wherein when one section chain is extended from the take up mechanism and into a corresponding position adjacent a second section chain, the section chains operably couple by the sequential attachment of first hook connection members of one section chain directly to second hook connection members of the second section chain.

a kicker, the kicker operably attached to a crossbar of each section of the section chain whereby when the section is taken up by the take up mechanism, the kicker shunts the section into a properly seated position relative to the section underneath it on the take up mechanism;

a drive mechanism operably attached to the section chains whereby actuation of the drive mechanism raises the section chains into position whereby the interlocking engagement of the first and second connection members form the column;

a guide tower operably positioned to the three section chains wherein the guide tower fits about and engages the sections and helps to guide the first and second connection members into coupled engagement; and

at least one guide roller operably connected to the guide tower and operably interacting with the section chains whereby the guide rollers engage the sections and helps to guide the first and second connection members into coupled engagement.

16. (Currently Amended) The retractable column of claim 15 further comprising an at least one shim, the shims operably attached to the guide tower whereby the shims engage the sections and help[[s]] to guide the first and second connection members into coupled engagement.

17. (Previously Presented) The retractable column of claim 16 further comprising an at least one interior roller, the interior rollers operably positioned on the guide tower whereby the interior rollers engage the sections and help to guide the first and second connection members into coupled engagement.

18. (Previously Presented) A triangular retractable column that can be stored on a take up mechanism, the triangular column further comprising:

three section chains, each section chain comprising a plurality of sections pivotally connected in a line, the section chains being attached in such a manner that they can be rolled up on the take up mechanism in a compact fashion and wherein each section is layered upon previous sections;

a first hook connection member rigidly secured to each section wherein the first hook connection member extends in a horizontal manner from the section;

a second hook connection member rigidly secured to each section wherein the second hook connection member extends in an off-set manner from the section, wherein the hook connection members are curved and wherein when one section chain is extended from the take up mechanism into a corresponding position adjacent a second section chain, the section chains operably coupled by the sequential attachment of first hook connection members of one section chain directly to second hook connection members of the second section chain;

a kicker, the kicker operably attached to a crossbar of each section of the section chain whereby when the section is taken up by the take up mechanism, the kicker shunts the section into a properly seated position relative to the section underneath it on the take up mechanism;

a drive mechanism operably attached to the section chains whereby actuation of the drive mechanism raises the section chains into position whereby the interlocking engagement of the first and second connection members to form the column;

a gear rack fixedly connected to each section of the section chain, the gear rack affixed an extruded T-slot to which fasteners are attached through the gear rack and into the section whereby the gear rack is positioned to be engaged by the drive mechanism and an at least one guide roller; and

an at least one key inserted into the gear rack and the section of the section chain whereby the gear rack is affixedly connected to the section of the section chain.

19. (Previously Presented) The retractable column of claim 15 further comprising a drive mechanism operably attached to the section chains whereby actuation of the drive mechanism raises the section chains into position whereby the interlocking engagement of the first and second connection members to form the column.

20. (Withdrawn) The apparatus of claim 19 wherein the guide tower further comprises an at least one tongue, the tongues movably connected to an at least one post by an at least one reaction ring whereby the guide tower can move in an X, Y horizontal plane.

21. (Previously Presented) An apparatus for raising a retractable triangular column, the apparatus comprising:

three section chains adjacently positioned, the section chains operably positioned so that they may be raised and lowered concurrently, each section chain including at least one hook connection member outwardly extending from each chain section wherein each hook connection member directly couples to another hook connection member to link each section chain to the adjacent section chain in such a manner as to form a rigid triangular column as the section chains are raised in an operable position, the hook connection members being fixedly connected to the section chains;

a guide tower, the guide tower positioned about and engaging the sections chains and situated so that as the section chains are raised, the section chains move up the length of the guide tower and are guided into a position that facilitates the coupling of each hook connection member to the adjacent hook connection member to form the column;

an at least one guide roller, the guide roller operably attached to the guide tower so that the guide roller operatively interacts with a portion of the sections of the section chains to guide the section chains into position where each hook connection member may be physically coupled to the hook connection member adjacent to it;

an at least one shim, each shim operably attached to the guide tower so that the shim operatively interacts with a portion of the section chains, the shims providing an adjustable platform for guiding the sections of the section chains into a position whereby the coupling of the adjacent hook connection members will be accomplished; and,

a motor operably affixed to the guide tower in a position to operably interact with the section chains, the motor effectuating the raising and lowering of each section chain.

22. (Cancelled)

23. (Withdrawn) The retractable column of claim 22 further comprising:

a guide tower operably positioned relative to each section chain whereby the guide tower helps to guide the first and second hooks into operably engagement;

an at least one roller, the rollers operably attached to a guide tower, the rollers rotationally engaging the sections of the section chain as the section chain is raised in a manner to form the tower, the rollers guiding the section chains into a position whereby the sections chains my be coupled to the adjacent section chains to form the retractable tower;

a motor in operably connection with each section chain and operably affixed to the guide tower, the motor effectuating the raising and lowering of each section chain; and

an at least one reaction ring operably attached to the guide tower and connected to an at lease one post whereby the guide tower can move in an X, Y horizontal direction.

24. (Withdrawn) A method for erecting a retractable tower, the method comprising:

providing adjacent section chains, each chain further comprising a series of pivotally connected sections;

coupling the adjacent sections of adjacent section chains by linking corresponding mating hooks from each section chain; and,

lifting the coupled section chains in a vertical manner as the adjacent section chains are coupled thereby forming each section chain into the face of a tower.